DOCUMENT RESUME

ED 182 638 CG 014 127

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TITLE A Test of the Janis and Mann Conflict Theory of Decision Making.
PUB DATE Sep 79
NOTE 9p.: Paper presented at the Annual Convention of the American Psychological Association (87th, New York, NY, September 1-5, 1979)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Adults: *Behavior Patterns: College Students: *Conflict Resolution: *Coping: *Decision Making: Foreign Countries: *Information Processing: *Reactive Behavior: Stress Variables: Time Perspective
IDENTIFIERS *Australia (South Australia)

ABSTRACT

The conflict theory of decision making was examined by testing a conflict model which differentiated among three basic coping patterns in response to decisional conflict, i.e., defensive avoidance, panic, and vigilance. Male college students (N=53) were administered two decisional problems, "The Changing Work Procedures Case" and "David's Problem." The conditions under which subjects made their decisions were varied to create one of the three coping patterns. Results indicated that the vigilance group showed superior information processing to panic subjects, but were no different from defensive avoidance subjects. Subjects in the vigilance group produced better quality decisions than those in the other two groups. (Author)

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For APA meetings, New York City, September 1979.

ED182638

A test of the Janis and Mann conflict theory of decision making

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Abstract

A laboratory experiment was conducted to test the conflict theory of decision making (Janis and Mann, 1977). The conflict model differentiates three basic coping patterns in response to decisional conflict: defensive avoidance, panic and vigilance. Each pattern stems from a specific combination of time pressure and optimism/pessimism about finding a better alternative and each produces a characteristic type of information processing and decisional product. Fifty-three male University students were administered two decisional problems, The Changing Work Procedures Case (Maier, 1970) and David's Problem (a dilemma involving acceptance of a job promotion). The conditions under which subjects made their decisions were varied to create either defensive avoidance (pessimism about finding a solution but no time pressure); panic (optimism about finding a solution but time pressure); and vigilance (optimism about finding a solution and no time pressure). As predicted, the vigilance group showed superior information processing to panic subjects, but contrary to prediction, were no different from defensive avoidance subjects. Consistent with the hypothesis, subjects in the vigilance group produced better quality decisions than the other two groups.

CG 014127

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The conflict theory of decision making (Janis and Mann, 1977) postulates three basic patterns of coping with severe decisional conflict: defensive avoidance, panic (hypervigilance), and vigilance. The decision maker who resorts to defensive avoidance evades the conflict by constructing wishful rationalizations and remaining selectively inattentive to corrective information. The decision maker in panic searches frantically for a way out of the dilemma, impulsively seizing upon a hastily contrived solution. The vigilant decision maker searches for relevant information, assimilates it in an unbiased manner and appraises alternatives carefully before making a choice. According to the conflict model, defensive avoidance and panic tend to produce defective decision making whereas vigilance generally leads to decisions of good quality.

The conflict model postulates that the three coping patterns are determined by the presence or absence of three conditions: arousal of conflict, hope of finding a better alternative, and belief that there is adequate time available in which to move toward a decision. The linkages between these conditions and the three coping patterns are as follows:

(i) conflict + pessimism about finding a better solution + absence of time pressure → defensive avoidance;

(ii) conflict + optimism about finding a better solution + time pressure → panic;

(iii) conflict + optimism about finding a better solution + absence of time pressure → vigilance.

Janis and Mann claim that the three coping patterns are linked dependably with the specified conditions. So far, however, there have been no direct tests of the theory. The supporting evidence has been limited to studies showing that under conditions predictive of defensive avoidance decision makers will tend to bolster or rationalize alternatives (Mann, Janis and Chaplin, 1969) and that under conditions predictive of vigilance decision makers will display high interest in supportive and non supportive information (Janis and Rausch, 1970). Indirect evidence in support of the theory has also been obtained from studies of decision counselling techniques designed to counteract defensive avoidance and promote vigilance (e.g. Mann, 1972; Hoyt & Janis, 1975; Langer, Janis & Wolfer, 1975).

The aim of the present study was to create the set of antecedent conditions specified in the conflict model -- conflict, pessimism/optimism about finding a satisfactory solution and perceptions of deadlines -- in order to test whether the coping patterns and their associated characteristics specified by the model can be found. It was predicted that the conditions that produce vigilance will induce better decision processing and a superior decision product than the conditions that create defensive avoidance and panic.

Procedure

Subjects, 53 male students at Flinders University, took the role of decision makers. They were required, individually, to make two decisions, The Changing Work Procedures Case (Maier, 1970) and David's Problem.

The Changing Work Procedures Case deals with an assembly line problem involving three men and their foreman. To prevent boredom the men had developed a system of hourly rotation over each of three positions. A work efficiency expert had indicated that to improve efficiency each man should only work on his best position. Subjects were required to recommend a solution to the conflict between workers and management. David's Problem is the case of a young, ambitious architect who has been offered a major promotion which will involve serious dislocation and upheaval for his family. Subjects were required to recommend a solution to the problem.

Conflict manipulation. In order to create conflict, all subjects were informed that their reputations as decision makers were at stake. They were told that decision making is one of the most important of all human activities. They were then told that their solutions to the two problems would indicate their competence as decision makers and that those students capable of making good decisions and those making poor ones would be identified and interviewed.

Manipulations to create coping patterns. Subjects were randomly allocated to one of three groups. The instructions administered to each group were designed to create the set of conditions linked to each coping pattern.

1. Defensive avoidance (n = 16). To create no hope for a better solution (pessimism) subjects were told "The problem that you are about to do has been used fairly often in previous research studies. This is a tricky problem where very few solutions are possible. This is a human relations problem, which intrinsically does not lend itself to lots of different solutions ... ." To create no time pressure subjects were told "You have about 20 minutes to complete it, so there is no need to hurry. There is plenty of time."

2. Panic (n = 18). To create hope for a better solution subjects were informed "... This is a tricky problem, the kind of problem where many solutions are possible. This is a human relations problem which lends itself to lots of different solutions ..." To create time pressure subjects were told "We haven't much time available, about 20 minutes, so you'll have to hurry. Please raise your hand as soon as you have completed it ... I will keep a close watch on this clock and keep you informed of the time."

3. Vigilance (n = 19). Instructions used to create hope for a better solution and no time pressure were identical to the relevant statements made to the defensive avoidance group and to the panic group.

In each group, subjects were allowed a standard time to achieve a solution to the two decisional problems and to answer a set of questions measuring the decision process used in finding a solution to David's Problem.

Dependent Variables. Two measures of decision making performance were taken.

Decision Process Index. Four of the seven criteria specified by Janis and Mann (1977, p.77) as indicative of good decision processing were measured. These were all objectively measurable criteria. Subjects, after they had given their decision on David's Problem, were required to list (a) the alternatives generated; (b) the objectives they had tried to meet; (c) the costs and risks considered for each alternative; and (d) the problems considered as decisional consequences. The number of items listed for each variable was combined to yield a Decision Process Index, on which scores ranged from 1 to 18. Decision process was not measured for the Changing Work Procedures Case.

Decision Product. The conflict model suggests that if the decision maker fully meets the criteria for good decision processing he/she should produce a sound, creative decicion. A decision product score was obtained by rating the solutions generated. For the Changing Work Procedures Case Maier's (1970) scoring system was followed: Retain current system = 0 points; change to each worker's best position = 5 points; adoption of a new combination involving worker rotation = 10 points. Additional points were given for elaboration of these solutions. For David's Problem no particular solution was designated as best. Each solution was given a score according to the extent creative reasons were taken into account. Scores were independently checked by two judges blind to the experimental condition. Interjudge reliability was satisfactory ($r = +.85$).

Results and Discussion

Conflict theory postulates that the various combinations of experimental manipulations relating to conflict, optimism/pessimism and time pressure will produce three coping patterns -- defensive avoidance, panic and vigilance -- which are characterized by distinct decisional behaviours. Specifically, it was predicted that the vigilance group would show better decision processing and better quality decisions than the defensive avoidance and panic groups.

Table 1 presents the mean scores obtained by the three groups on

Insert Table 1 about here

three measures: Changing Work Procedures decision product; David's Problem decision process; and David's Problem decision product.

The prediction that subjects in the vigilance group would show superior decision processing to the other two groups was only partially confirmed. Vigilant subjects scored significantly higher than panic subjects on the decision process index (9.74 vs 7.12, $t = 2.22$, $df = 34$, $p<.05$) but contrary to prediction they scored no higher than defensive avoidance subjects on the index (9.74 vs 9.75).

Consistent with the prediction subjects in the vigilance group produced better quality decisions. On the Changing Work Procedures the group differences, although in the predicted direction, fell short of statistical significance. However, vigilance subjects were marginally more productive in their decisions than both panic subjects and defensive avoidance subjects (6.63 vs 4.39, $t = 1.57$, $df = 35$, p .10; 6.63 vs 4.75, $t = 1.27$, $df = 33$, $p<.20$). On David's Problem, vigilance subjects, with a mean score of 5.74, were significantly more productive than defensive avoidance subjects ($\bar{X} = 4.13$) and panic subjects ($\bar{X} = 3.41$), (5.74 vs 4.13, $t = 2.59$, $df = 33$, $p<.01$; 5.74 vs 3.41, $t = 3.81$, $df = 35$, $p<.01$). The scores of defensive avoidance subjects were not significantly higher than panic subjects (4.13 vs 3.41, $t = 1.22$, $df = 32$, $p>.10$). In sum, the findings are generally consistent with the set of conflict theory predictions, especially with respect to quality of decision.

Two questions deserve attention. Why did subjects in the defensive avoidance group score as well as vigilance subjects on decision processing? And why having scored as well did they fail to achieve an equally good decision product?

Conflict theory, together with cognitive dissonance theory (Festinger, 1964) acknowledges that rationalization and bolstering, the key strategies involved in defensive avoidance, require considerable effort and ingenuity. In order to successfully distort the value of choice alternatives the decision maker must first confront the competing alternatives and assess their features. In brief, defensive avoidance entails the kind of "cognitive work" reflected in some of the measures that comprise the decision process index, e.g., the number of costs and risks considered for each alternaitve. Our decision process index fails to discriminate finely enough between the kinds of processing associated with various coping patterns.

The connection between decision process and product, assumed by conflict theory, bears on the question of why defensive avoidance subjects scored relatively well on process but poorly on product. Correlation coefficients were computed between decision process and product scores on David's Problem for each of the three groups. As expected, the correlation between process and product, although modest, was positive for vigilance subjects and for panic subjects respectively ($r = +.20$, $df = 17$, $p<.10$; $r = +.27$, $df = 15$, $p<.10$). However, there was virtually no relationship between process and product among defensive avoidance subjects ($r = -.01$, $df = 14$, ns). This suggests that the information processing undertaken by defensive avoidance subjects was not in the service of finding a high quality solution, but rather, as postulated by the model, was directed toward conflict evasion.

In general, the relationship between process and product was not strong, which creates problems for an analysis of vigilance in particular. An obvious explanation is that several of Janis and Mann's process criteria not included in the index because of the problem of devising an objective measure (e.g. "careful re-evaluation of alternatives") are indispensable elements that could have strengthened the relationship with decision product.

It is also possible however, that there is an additional factor in the decision making process not taken into account in the Conflict model and accordingly missing from the Decision process index. Janis and Mann maintain that "a moderate or high degree of vigilant information processing is a necessary, albeit insufficient, condition for arriving at a decision that will prove satisfactory in the long run" (Janis and Mann, 1977, p.12). If decision making is regarded as a form of problem solving, it is clear that in order to achieve a successful solution, the individual must be able to recognize the relevant elements of the problem as well as integrate them so as to arrive at a useful and sound solution. Thus, to achieve decisions of the type associated with vigilance, the individual must first of all analyze the elements of the problem and then synthesize them to achieve a sound and useful solution. Perhaps the instruction "many solutions are possible ..." facilitated the process of synthesis and hence the positive correlations between PROCESS and PRODUCT for the Vigilance and Panic groups, whereas "very few solutions are possible ..." may have inhibited successful synthesis in the case of the Defensive Avoidance group. It would be worthwhile extending Janis and Mann's criteria for decision processing, as well as the Decision Process Index, to include a criterion for effective synthesis. This should lead to a stronger relationship between process and product, consistent with the Conflict model.

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Table 1

Mean scores for the three experimental groups on decision process and decision product

Decision Coping Pattern	Changing Work Procedures	David's Problem		
	decision product	decision process	decision product	r process-product
Defensive avoidance n = 16	4.75	9.75	4.13	r = -.01
Panic n = 18	4.39	7.12	3.41	r = +.27
Vigilance n = 17	6.63	9.74	5.74	r = +.20

Note: For David's Problem the panic group is reduced to n = 17.

Changing Work Procedure product $F = 1.50$, $df = 2/50$, $p > .10$

David's Problem process $F = 2.95$, $df = 2/49$, $p < .10$

David's Problem product $F = 7.99$, $df = 2/49$, $p < .01$